A METHOD OF FORMING ISOLATION DUMMY FILL STRUCTURES

ABSTRACT OF THE DISCLOSURE

A method of providing dummy fill structures to meet the strict requirements for planarizing MRAM (Magnetic Random Access Memory) and other semiconductor devices to gain silicon floor space and allow maximum use of wiring levels. The method deposits a sacrificial or dummy layer of dielectric material such as SiO_2 to form dummy fill structures prior to the planarization steps. The insulative dummy fill structures allow the use of less precise lithography and etching methods. The dummy fill structures provide support during the CMP process that planarizes the active devices prior to depositing another layer of SiO_2 and etching lines of metallization. Since the dummy structures are made of a dielectric rather than conductive materials, the risk of shorts between levels of metallization and between active devices and lines of metallization is reduced.